UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,900	12/18/2000	Hubert Koch	00-726	6888

7590 01/02/2003

Bachman & Lapointe
Suite 1201
900 Chapel Street
New Haven, CT 06510-2802

EXAMINER	
IP, SIKYIN	

ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	Examiner	Group Art Unit	

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☑ Responsive to communication(s) filed on 10/9/02.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disp sition of Claims

☑ Claim(s) 15-25 is/are pending in the application.

Of the above claim(s)_____ is/are withdrawn from consideration.

☐ Claim(s)_____ is/are allowed.

☑ Claim(s) 15-25 is/are rejected.

☐ Claim(s)_____ is/are objected to.

☐ Claim(s)_____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on_____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on_____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number)_____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received:_____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s)._____

☑ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Pat nt Application, PTO-152

☐ Other_____

Office Action Summary

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 15-20 and 23-24 are rejected under 35 U.S.C. § 103 as being unpatentable over EP 594509 (abstract and page 3, lines 14-19), PTO-1449), USP 5540791 to Matsuo et al (abstract and col. 4, lines 16-55), PTO-1449), or USP 2336521 to Stroup (page 1, right-col. Lines 1-17 and page 2, left-col. lines 1-34).

4. The cited reference(s) disclose(s) the features including the claimed elements added to form Al base alloy. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the

reference. Overlapping ranges have been held to be a prima facie case of obviousness, See MPEP § 2112.01, In re Best, 195 USPQ 430, In re Malagari, 182 USPQ 549, In re Titanium Metals Corporation of America v. Banner, 227 USPQ 773 (Fed. Cir. 1985), In re Woodruff, 16 USPQ 2d 1934, and In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

5. Cited references do not disclose the combination of Be and V for dross prevention although both Be and V are taught to be added to Al-Mg alloys. Be is taught to be added in order to reduce dross and V is taught to be added to improve mechanical properties. Since cited references teach to add both the claimed Be and V elements to Al-Mg alloys, the claimed dross reduction function due to said elements would have been inherently possessed by the alloys of cited references. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possess characteristics attributed to the claimed product. In re Spade, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). In re Best, 195 USPQ, 430 and MPEP § 2112.01.

> "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the

prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)."

6. The V content (0.1 to 1 wt.%) in Stroup is higher than the claimed V content (0.02 to 0.08 wt.%). But, it is well settled that a prima facie case of obviousness would exist where the claimed ranges and prior art do not overlap but are close enough that one ordinary skilled in the art would have expected them to have the same properties, In re Titanium Metals Corporation of America v. Banner, 227 USPQ 773 (Fed. Cir. 1985), In re Woodruff, 16 USPQ 2d 1934, In re Hoch, 428 F.2d 1341, 166 USPQ 406 (CCPA 1970), and In re Payne 606 F.2d 303, 203 USPQ 245 (CCPA 1979). To overcome the prima facie case, an applicant must show that there are substantial, actual differences between the properties of the claimed compound and the prior art compound. Hoch, 428 F.2d at 1343-44, 166 USPQ at 409.

7. Claims 21-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 594509, USP 5540791 to Matsuo et al, or USP 2336215 to 5,12 Stroup as applied to claims above, and further in view of acknowledged prior art admission in page 1, lines 6-27 of the instant specification.

8. The claimed subject matter as is disclosed and rejected above by the cited reference(s) except for the holding the Al based alloy at its melting temperature.

However, prior art admission discloses Al based alloy in the foundry is known to be held at the melting temperature 750 °C before cast. Therefore, it is contemplated within ambit of ordinary skill artisan to hold a conventional Al based alloy melt such as alloys of EP 594509 or Matsuo et al at 750°C before cast for it is the known melting temperature for Al based alloys. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

Response to Arguments

9. Applicant's arguments filed July 19, 2002 have been fully considered but they are not persuasive.

10. Applicants argue that the combination of adding Be and V to reduce dross-formation in Al melt cannot be derived from cited references. But, Matsuo in col. 4, lines 16-41 and EP '509 in page 3, lines 14-19 clearly teach to add Be to reduce oxidation of Mg during melting. Said references also teach to add V for grain refinement. References may add V for different reason. But applicants may have a different reason for or advantage resulting from doing what the prior art relied upon has suggested does not demonstrative of nonobviousness, *In Re Kronig* 190 USPQ 425, 428 (CCPA 1976) ; *In Re Lintner* 173 USPQ 560 (CCPA 1972) ; the prior art motivation or advantage may be different than that of applicant while still supporting a conclusion of obviousness. *In re Wiseman* 201 USPQ 658 (CCPA 1979) ; *Ex parte*

Obiaya 227 USPQ 58 (Bd. of App. 1985).

Conclusion

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s) have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combination of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been meet by the rejections as set forth above.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (703) 308-2542. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (703)-308-1146.

The facsimile phone numbers are (703) 872-9310 (non-final Official Paper only), (703) 872-9311 (after-final Official Paper only), and (703) 305-7719 (Unofficial Paper only). When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

SIKYIN IP
PRIMARY EXAMINER
ART UNIT 1742

S. Ip
December 29, 2002